

AMENDMENTS TO THE CLAIMS

1. (Original) Silk thread containing spider thread protein, characterized by being produced by a transgenic silkworm possessing a pair of fibroin H chain genes.
2. (Original) Silk thread containing spider thread protein according to claim 1, characterized in that said silk thread essentially retains the basic structure of silk thread fibroin H chain protein.
3. (Currently Amended) Silk thread according to ~~claim 1 or 2~~ claim 1, characterized in that the spider thread protein is dispersed in the fibroin protein.
4. (Currently Amended) Silk thread according to ~~any one of claims 1 to 3~~ claim 1, characterized in that the spider thread protein is fused with a polypeptide contained in the fibroin H chain protein.
5. (Original) Silk thread according to claim 4, characterized in that the spider thread protein is inserted between the N-terminal portion and C-terminal portion of the fibroin H chain protein, and is disulfide bonded with the fibroin L chain protein via a cysteine contained in the C-terminal portion.
6. (Currently Amended) Silk thread according to ~~any one of claims 1 to 5~~ claim 1, wherein the spider thread protein content is 0.1-25 wt%.
7. (Original) Silk thread according to claim 6, wherein the spider thread protein content is 1-15 wt%.
8. (Original) Silk thread according to claim 7, wherein the spider thread protein content is 1-10 wt%.

9. (Currently Amended) Silk thread according to ~~any one of claims 1 to 8~~ claim 1, characterized in that the spider thread protein includes the peptide listed as SEQ ID NO: 1, or the peptide listed as SEQ ID NO: 1 with a deletion, substitution or addition of one or more amino acids and having the properties of spider thread protein.

10. (Currently Amended) Silk thread according to claim 9, characterized by comprising spider thread protein with 3-30 repeats of the peptide ~~of claim 9~~.

11. (Currently Amended) Silk thread according to claim 10, characterized by comprising spider thread protein with 4-16 repeats of the peptide ~~of claim 9~~.

12. (Currently Amended) Silk thread according to ~~any one of claims 1 to 8~~ claim 1, characterized in that the spider thread protein includes the peptide listed as SEQ ID NO: 2, or the peptide listed as SEQ ID NO: 2 with a deletion, substitution or addition of one or more amino acids and having the properties of spider thread protein.

13. (Currently Amended) Silk thread according to claim 12, characterized by comprising spider thread protein with 3-30 repeats of the peptide ~~of claim 12~~.

14. (Currently Amended) Silk thread according to claim 13, characterized by comprising spider thread protein with 4-16 repeats of the peptide ~~of claim 12~~.

15. (Currently Amended) Silk thread according to ~~any one of claims 1 to 8~~ claim 1, characterized in that the spider thread protein contains both ~~the a peptide according to claim 9~~ listed as SEQ ID NO: 1, or the peptide listed as SEQ ID NO: 1 with a deletion, substitution or addition of one or more amino acids and having the properties of spider thread protein and ~~the a peptide according to claim 12~~ listed as SEQ ID NO: 2, or the peptide listed as SEQ ID NO: 2

with a deletion, substitution or addition of one or more amino acids and having the properties of spider thread protein.

16. (Currently Amended) Silk thread according to ~~any one of claims 5 to 15~~ claim 5, characterized in that the C-terminal portion of the fibroin H chain protein fused with the spider thread protein is the peptide of SEQ ID NO: 3 or the peptide of SEQ ID NO: 3 having a deletion, substitution or addition of one or more amino acids and having 2 or 3 cysteines.

17. (Currently Amended) Silk thread according to ~~any one of claims 5-16~~ claim 5, characterized in that the N-terminal portion of the fibroin H chain protein fused with the spider thread protein is the peptide of SEQ ID NO: 4 or the peptide of SEQ ID NO: 4 having a deletion, substitution or addition of one or more amino acids, and ~~is a peptide such that~~ the gene coding for said peptide retains the function of enhancing promoter-dependent exogenous protein expression.

18. (Currently Amended) Silk thread according to ~~any one of claims 1 to 17~~ claim 1, wherein the spider thread protein is not fused to a selection marker protein.

19. (Currently Amended) A transgenic silkworm possessing a pair of fibroin H chain genes and producing silk thread according to ~~any one of claims 1 to 18~~ claim 1 wherein the gene coding for spider thread protein is transferred into a region other than the pair of fibroin H chain genes.

20. (Original) A transgenic silkworm according to claim 19, characterized by having a fibroin H chain gene promoter for expression of spider thread protein in the gene recombinant silkworm.

21. (Original) A transgenic silkworm according to claim 19, characterized by having a fibroin H chain gene promoter and its upstream region for expression of spider thread protein in the gene recombinant silkworm.

22. (Currently Amended) A transgenic silkworm according to ~~claim 20 or 21~~ claim 20, characterized in that the entirety or a portion of the full-length first exon·first intron·second exon region of the fibroin H chain gene is linked downstream from the fibroin H chain promoter.

23. (Currently Amended) A method for producing a transgenic silkworm according to ~~any one of claims 19 to 22~~ claim 19, which utilizes a transposon.

24. (Original) A method for producing a transgenic silkworm according to claim 23, characterized in that the transposon is piggyBac transposon.

25. (Currently Amended) A method for producing silk thread characterized by using a transgenic silkworm according to ~~any one of claims 19 to 22~~ claim 19.

26. (Currently Amended) A textile employing silk thread according to ~~any one of claims 1 to 18~~ claim 1.